

AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph 0049 on page 10 with the following amended paragraph:

[0049] FIG. 4 is a partial screen capture illustrating a GUI **400** having lens control elements for user interaction with detail-in-context data presentations in accordance with an embodiment of the invention. Detail-in-context data presentations are characterized by magnification of areas of an image where detail is desired, in combination with compression of a restricted range of areas of the remaining information (i.e. the context), the end result typically giving the appearance of a lens having been applied to the display screen surface. This lens **410** includes a "focal region" **420** having high magnification, a surrounding "shoulder region" **430** where information is typically visibly compressed, and a "base" **412** surrounding the shoulder region **430** and defining the extent of the lens **410**. In FIG. 4, the lens **410** is shown with a circular shaped base **412** (or outline) and with a focal region **420** lying near the center of the lens **410**. However, the lens **410** and focal region **420** may have any desired shape. For example, in FIG. 6, the lens **410** ~~**610**~~ has a conical frustum shape with a flat top **420** ~~**620**~~ and conical shoulders **430** ~~**630**~~. As mentioned above, the base of the lens **412** ~~**612**~~ may be coextensive with the focal region **420** ~~**620**~~.

Please replace paragraph 0050 on pages 10-11 with the following amended paragraph:

[0050] In general, the GUI **400** has lens control elements that, in combination, provide for the interactive control of the lens **410** ~~**610**~~. The effective control of the characteristics of the lens **410** by a user (i.e. dynamic interaction with a detail-in-context lens) is advantageous. At any given time, one or more of these lens control elements may be made visible to the user on the display surface **340** by appearing as overlay icons on the lens **410**. Interaction with each element is performed via the motion of an input or pointing device **310** (e.g. mouse), with the motion resulting in an appropriate change in the corresponding lens characteristic. As will be described, selection of which lens control element is actively controlled by the motion of the pointing device **310** at any given time is determined by the proximity of the icon representing the pointing device **310** (e.g. cursor) on the display

surface **340** to the appropriate component of the lens **410**. For example, "dragging" of the pointing device at the periphery of the bounding rectangle of the lens base **412** causes a corresponding change in the size of the lens **410** (i.e. "resizing"). Thus, the GUI **400** provides the user with a visual representation of which lens control element is being adjusted through the display of one or more corresponding icons.

Please replace paragraph 0057 on page 13 with the following amended paragraph:

[0057] *Move*. Lateral movement of a lens **410** is provided by the move lens control element of the GUI **400**. This functionality is accomplished by the user first selecting the lens **410** ~~—610—~~ through a point and click operation. Then, the user points to a point within the lens **410** that is other than a point lying on a lens control icon **450, 412, 411, 421, 481, 482, 491, 440, 640**. When the cursor **401** is so located, a move icon **460** is displayed over the lens **410** to replace the cursor **401** or may be displayed in combination with the cursor **401**. The move icon **460** not only informs the user that the lens **410** may be moved, but also provides the user with indications as to what movement operations are possible for the selected lens **410**. For example, the move icon **460** may include arrowheads indicating up, down, left, and right motion. Next, the lens **410** is moved by a click and drag operation in which the user clicks and drags the lens **410** to the desired position on the screen **340** and then releases the mouse button **310**. The lens **410** is locked in its new position until a further pickup and move operation is performed.

Please replace paragraph 0065 on page 18 with the following amended paragraph:

[0065] Alternatively, rather than choosing a point within the extent of the focal region, within the extent of the lens, or without the extent of the lens to select the zoom function, a zoom function menu with multiple items (not shown) or multiple zoom function icons (not shown) may be used for zoom function selection. The zoom function menu may be presented as a pull-down menu. The zoom function icons may be presented in a toolbar ~~—650—~~ or adjacent to the lens **410** when the lens is selected. Individual zoom function menu items or zoom function icons may be provided for each of the "zoom to focal region

extent", "zoom to lens extent", and "zoom to scale" functions described above. In this alternative, after the lens **410** is selected, a bounding rectangle icon **411** may be displayed surrounding the base **412** and a bounding rectangle icon **421** may be displayed surrounding the focal region **420**. Zoom functionality is accomplished by the user selecting a zoom function from the zoom function menu or via the zoom function icons using a point and click operation. In this way, a zoom function may be selected without considering the position of the cursor **401** within the lens **410**.

Please replace paragraph 0066 on page 18 with the following amended paragraph:

[0066] *Scoop*. The concavity or "scoop" of the shoulder region **430** of the lens **410** is provided by the scoop lens control element of the GUI. After the lens **410** is selected, the scoop control is presented to the user as a slide bar icon **640** (see FIG. 6) near or adjacent to the lens **410** ~~—, **610**~~ and typically below the lens **410**. Sliding the bar **641** of the slide bar **640** results in a proportional change in the concavity or scoop of the shoulder region **430** of the lens **410**. The slide bar **640** not only informs the user that the shape of the shoulder region **430** of the lens **410** may be selected, but also provides the user with an indication as to what degree of shaping is possible. The slide bar **640** includes a bar **641** that may be slid left and right, or up and down, to adjust and indicate the degree of scooping. To control the degree of scooping, the user would click on the bar **641** of the slide bar **640** and drag in the direction of desired scooping degree. Once the desired degree of scooping is reached, the user would release the mouse button **310**. The lens **410** is then locked with the selected scoop until a further scooping operation is performed.